

In the Claims (Marked-Up Version)

8. (Amended) The [nucleic acid molecule] method of Claim [7] 34, wherein said [molecule] purified nucleic acid sequence comprises the sequence between nucleotides 284 to 1477 of the sequence set forth in SEQ ID NO: 1 or the complement thereof.

9. (Amended) The [nucleic acid molecule] method of Claim [7] 35, wherein said [molecule] purified nucleic acid sequence comprises the sequence between nucleotides 484 to 1596 of the sequence set forth in SEQ ID NO: 2 or the complement thereof.

31. (Amended) A method for screening substances capable of modulating the activity of [the] a purified TRAAK channel protein [of any of Claims 1 to 3] which comprises:

(a) transferring a purified nucleic acid sequence that encodes the TRAAK potassium channel protein into a cellular host;

(b) culturing the host under conditions for expression of TRAAK potassium channel;

[(a)](c) reacting [varying] selected amounts of the substance to be screened with the cellular host [of Claim 19]; and

[(b)](d) measuring the effect of the substance to be screened on a potassium channel expressed by the cellular host.

32. (Amended) A method for screening substances capable of modulating the activity of [the] a purified TRAAK channel protein [of any of Claims 1 to 3] which comprises:

(a) transferring a purified nucleic acid sequence or a functionally equivalent derivative thereof that encodes the TRAAK potassium channel protein into a cellular host;

(b) culturing the host under conditions for expression of TRAAK potassium channel;

[(a)](c) reacting [varying] selected amounts of the substance to be screened with the cellular host [of Claim 20]; and

[(b)](d) measuring the effect of the substance to be screened on a potassium channel expressed by the cellular host.

33. (Amended) A method for screening substances capable of modulating the activity of [the] a purified TRAAK channel protein [of any of Claims 1 to 3] which comprises:

(a) transferring a purified nucleic acid sequence that encodes the TRAAK potassium channel protein into a cellular host;

(b) culturing the host under conditions for expression of TRAAK potassium channel exclusively in brain, cerebellum, spinal cord and retina neural tissues;

[(a)](c) reacting [varying] selected amounts of the substance to be screened with the cellular host [of Claim 21]; and

[(b)](d) measuring the effect of the substance to be screened on a potassium channel expressed by the cellular host.

34. (Amended) A method for screening substances capable of modulating the activity of [the] a purified protein [of any of Claims 1 to 3] which comprises:

(a) transferring a purified nucleic acid sequence represented by SEQ ID No: 1 that encodes the protein into a cellular host;

(b) culturing the host;

[(a)](c) reacting [varying] selected amounts of the substance to be screened with the cellular host [of Claim 22]; and

[(b)](d) measuring the effect of the substance to be screened on a potassium channel expressed by the cellular host.

35. (Amended) A method for screening substances capable of modulating the activity of [the] a purified protein [of any of Claims 1 to 3] which comprises:

(a) transferring a purified nucleic acid sequence represented by SEQ ID No: 2 that encodes the protein into a cellular host;

(b) culturing the host;

[(a)](c) reacting [varying] selected amounts of the substance to be screened with the cellular host [of Claim 23]; and

[(b)](d) measuring the effect of the substance to be screened on a potassium channel expressed by the cellular host.

37. (Amended) The [process] method of any of Claims 31 - [36] 35, wherein said process screens substances capable of preventing or treating heart disease in mammals.

38. (Amended) The [process] method of any of Claims 31 - [36] 35, wherein said process screens substances capable of preventing or treating central nervous system disease in mammals.

Kindly cancel Claims 1 - 7, 10 - 30, 36 and 39 - 51 without prejudice and without disclaimer of the subject matter thereof.